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ABSTRACT

This paper provides an extensive discussion of children's play, including examination of theoretical, developmental, measurement, and classroom or playgroup perspectives for teachers of children between the ages of 2 and 6 years. The first section offers a brief overview of theories of play and describes several distinguishing features of play, such as intrinsic motivation and attention to means rather than ends. The development of play behavior is discussed in the second section. Specific attention is given to sensorimotor play and, more extensively, to aspects of symbolic play such as self/other relationships, object substitution, and dramatic and constructive play. The third section discusses factors contributing to individual differences in play behavior: handicaps, gender, and childrearing influences. Suggestions as to how teachers can facilitate children's play are given in the fourth section; in addition, the problem of justifying the inclusion of play in the preschool curriculum is discussed. (RH)

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RECENT RESEARCH ON PLAY:

THE PERSPECTIVE OF THE TEACHER

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Teachers of 2- to 6-year olds must often justify the curriculum they provide. As critics express concern about low levels of academic achievement in elementary and secondary schools, questions trickle down to kindergartens, preschools, and day care centers. One of the most persistent of these has to do with play. How can the generation that will come of age as we move into the twenty-first century cope with its problems if children spend too much time "just playing" rather than acquiring basic skills?

Current scepticism about play is not new. It goes back to a Puritan ethic that dichotomized work and play. While play is no longer seen as sinful, neither is it believed to be very worthwhile. The definition of play involves reference to certain intangibles--a fact that goes against the grain of the behaviorist tradition that has dominated education and psychology. Only recently has play become an area of interest to many researchers. For example, in 1970, Carmichael's Manual of Child Psychology (Mussen, 1970), a reference work widely used by researchers, had no chapter on play. Mentions of play, doll play, playfulness, and games were limited to two dozen of its 2400 pages. In contrast, the 1983 edition of the manual includes a chapter on play with some 450 references, about 60% of them referring to work accomplished since 1970. A dozen or more books intended for the general reader as well as the researcher have also appeared.

The beleaguered teacher who turns hopefully to this literature will find few certain answers and may have some fond assumptions challenged. Although teachers share reseachers' concerns for the effects of play on the child's development, their perspectives differ. The evidence that teachers collect bears little resemblance to the data that most researchers

collect. Teachers, when planning for or reflecting on children's play may differentiate social from cognitive behavior or constructive play from dramatic play, or focus on an individual child to the exclusion of the other children in the group. More typically, however, their focus is on the "whole child" and on that child as a member of a group. Nevertheless, teachers are in a strategic position to see how the play of both individuals and groups relates to their non-play and how it changes over time. Accordingly, we think that teachers have important information and insight to offer researchers as well as things to learn in return.

Teachers see certain theoretical issues differently from researchers. They have questions that they would like the researchers to address. They also have a unique opportunity and responsibility for answering their own questions about how children play. In doing so they will more effectively support the play and the learning of the children in their groups and perhaps contribute to the growing body of knowledge about play.

In the material that follows we review briefly the theories that inform recent research and discuss the features of play as seen by researchers. This section is followed by a description of the development of play and some of the issues teachers need to consider as they assess the play of the children in their groups. Closely related to this is a consideration of individual differences in play. We turn next to the ways teachers may facilitate children's play. Finally, we consider the teacher's role in explaining to parents and administrators the importance of play for the developing child.

THEORIES OF PLAY

Since the days of Froebel, most teachers have seen play as an essential ingredient in the early childhood curriculum. Teachers' ideas about

the nature of that ingredient, its long-term importance, and their own responsibility for it have varied considerably depending on the theories or ideologies that inform them. For some, play represents those aspects of the curriculum that enable children to follow their own inclinations, as opposed to those aspects involving instruction or routines. Notions about what it is that play does for children may reflect theories that are now regarded as classical. Thus, the notion that "play lets the active child run it out" comes from the surplus energy theory, while "Balance the academics with active play" reflects recreation theory. "They learn through their play" represents practice theory. "Play reflects the culture" has its roots in recapitulation theory.

A more direct influence on teachers' thinking about play probably comes from twentieth century theorists associated with psychoanalysis (Erickson, 1950; A. Freud, 1964; Isaacs, 1930, 1966). Here the guiding ideas may be "Children work out emotional conflicts in play" and "In play, children develop mastery." Piaget (1962) also contributes to current ideas of play. These may include "Play is involved in cognitive development," "Play develops in stages," and possibly, "Play is assimilative and serves to incorporate or consolidate the child's experience."

The views of several other theorists have begun to appear in the literature of early childhood. Bruner (1972, 1976) sees play as "serious business," an important factor in evolution and development. Lieberman (1977) describes "playfulness" as a personality trait, a component of imagination and creativity. Singer (1973) finds in make-believe play a process which "if it is gently fostered as a human skill can make life infinitely richer and more exciting " (p. 259). Sutton-Smith (1971, 1979), who has served as a synthesizer of psychological and anthropological approaches to

play, describes play as "performance." Vygotsky (1967) sees play as an aspect of the preschool child's living in which he or she advances beyond the ordinary accomplishments of the age period and anticipates development in thinking that will only become characteristic later on. As Vygotsky puts it, the preschool child in play is "always above his average age, above his daily behavior." Accordingly, "play creates the zone of proximal development of the child " (p. 16).

The views of the anthropologist Gregory Bateson influenced other theorists and researchers. Bateson, in addition to examining the significance of the message "this is play," shows how the child in play learns that "there is such a thing as a role" and also that "the choice of style or role is related to the frame and context of behavior" (Schwartzman, 1978). Following along these lines, Schwartzman examines play as communication.

In general, the theories that are available are not comprehensive but consider only selected elements in the play of young children. None of them, with the possible early exception of Isaacs (1930, 1966), addresses the issue of play in the education of young children. However, some authors (Biber & Franklin, 1967; Forman & Hill, 1980; Kamii & DeVries, 1980) have recently attempted to provide bridges from selected theories to practice in the classroom.

The Distinguishing Features of Play

The available theories are in considerable agreement about certain features that distinguish play from other behaviors (Rubin, Fein, & Vandenberg, 1983). These definitional agreements enable researchers to compare results from study to study. Teachers, although their purposes differ from those of the researcher, also need to agree on the nature of play. They may consider whether knowledge of the following features can

help them to clarify what is going on when, for example, they watch a child intently making her way through an obstacle course, or see another child laughing as he assembles a collage.

Intrinsic motivation. This feature cannot be directly observed but may only be inferred. The child's interest in an activity may reveal itself in expressions of happiness or pleasure, but it may also be reflected in a serious demeanor and insistence on continuing. While intrinsic motivation is clear in a self-initiated activity such as playing Wonder Woman, it may also arise in the desire to continue an activity that may have been initiated by the teacher, such as a lotto game or a construction project.

Activities that intrinsically motivate are likely to be those that permit the child to resolve discrepancies between the novel and the familiar (Berlyne, 1960; Bruner, 1972; White, 1959). Not only play with objects (Forman & Hill, 1980) but also pretense play (Vgotsky, 1966), such as that occurring with baby dolls following the birth of a sibling, provide examples of motivation for play precipitated by novel experiences.

Attention to means and not ends. Although intrinsic motivation is an essential feature of play, it alone is not sufficient to mark an activity as play. As Piaget puts it, in play, assimilation, the incorporation of new information into existing mental structures (concepts, beliefs), takes precedence over accommodation, the modification of those structures to fit the demands of the environment. In play, children are less concerned with a particular goal than they are with various means of reaching it. Since the goals are self-imposed they too may vary as the play proceeds. The child who knows how to solve a puzzle stacks his or her pieces in new arrangements or uses them as props in pretense play. For example, Martin, while involved in house play, rubs a toy iron over the top of a

plastic cauliflower, saying, "I need to iron mine to bake it." After carefully running the iron over all the surfaces of the cauliflower, he returns to what appears to be been the original goal. He says, "OK, we can eat now."

Trying out patterns of action and thought previously acquired and combining them in new ways within a play situation appears to contribute flexibility to the child's thinking and problem solving (Dansky & Silverman, 1973, 1975; Smith & Dutton, 1979; Sutton-Smith, 1968; Vandenberg, 1980). The new combinations may be accompanied by a sense of discovery and exhilaration. "Galummphing" with ideas lacks the smoothness and efficiency that characterizes enjoyable work or goal specific activity, but it is experimentation that may enhance creative thinking. "Galummphing" is a feature that is lacking from curricula that are programmed to have the child arrive at only "correct" responses.

Non-literal behavior. This feature, limited to pretense play, begins as early as the first year of life (Fein, 1981) and is a predominant feature of preschool play. For example, Danny, playing in the sandbox, makes "cream of mosquito" soup. He adds small pebbles to several scoops of sand, saying that the rocks are the mosquitoes. After he has "cooked" the soup he gives several children pebbles to use as "money" to buy the soup he has for sale. The child's ability to transfer objects and situations to "as if" frames of reference enables him or her to transcend space and time.

The exercise of "make-believe" is thought to contribute to the child's later skill with hypothetical reasoning (Fagen, 1976) and abstract symbols (Fein, 1981; Pellegrini, 1980) and to the understanding of logical transformations (Golumb & Cornelius, 1977; Saltz, Dixon, & Johnson, 1977).

Freedom from external rules. Often cited to differentiate play from games with rules, this feature presents something of a paradox. Although there are no externally imposed rules in the play of preschool children, play has implicit rules in at least two senses. In the first place, as Vygotsky (1967) shows in describing sisters who play at being sisters, the imaginary situation already contains rules of behavior. A more recent illustration comes from a group of children playing veterinarian. The behaviors of the girl playing the role of veterinarian and of the boy who is a German Shepherd dog with a wounded paw reveal their understanding of the rules pertaining to the doctor/patient relationship.

Second, observational studies viewing children's play as communication (Garvey, 1977; Schwartzman, 1978) have revealed the rules that children generate as they try to enter the play situation and establish and pursue a plot and their roles in it. An example of negotiation showing good understanding of the rules comes from two boys wanting to play the role of father. First boy: "I'm the father." Second boy: "No, I am." First: "I want to be the father." Second: "OK, you could be the father and I'll be the grandfather. Then we can both be fathers."

Following "rules" and taking roles in play is a pleasurable, intrinsically motivated experience for the child. In it children learn to understand not only their own roles and the rules that define them but also the roles and rules of others. Coordinating several roles in a dramatic theme may prepare the child to engage in simple games with collective rules as he or she approaches the primary grades. Such behavior engages children in a beginning understanding of the rules and roles of society at large (Mead, 1934).

Self rather than object. Just as the teacher needs to be sensitive to the child's use and understanding of play rules and roles, it is important to distinguish when the child is not playing but exploring. In exploration, the child confronts an object that has not previously been in the foreground of attention. Exploration of an object is guided by the question, "What is this object and what can it do?" In play, the question is self-referenced, "What can I do with this object?" and the answer is, "Anything I wish" (Hutt, 1971; Weisler & McCall, 1976). Exploration, in Piaget's terms, is accommodative, and play is assimilative.

The distinction is an important one not only in assessing the child's behavior but also in planning curricula. For the teacher, the question is, "What is the appropriate balance between experiences that encourage exploration and those that encourage playing?"

Traditional elementary education appears to have relied heavily on accommodation (mainly of a verbal sort), making minimal provision for the children to play with the concepts they were acquiring. In contrast, traditional early childhood education, as represented in, for example, the early English nursery school directed by Susan Isaacs or the Bank Street nursery school, provided for both exploration and play. More recently, some preschools have seemed overcommitted to novelty (in the form of a new activity or new materials nearly every day), without allowing much time for either spontaneous exploration or play. Other preschools remain committed to play but make little provision for the novel or its exploration. There is some evidence (Hutt, 1979) that play with an object before it has been fully explored may limit the child's discovery of its specific properties. For example, the teachers in one center noted that the children never used certain hand puppets except in the way that the teachers had

prescribed when the puppets were new. They noted a similar lack of exploration of the properties and possibilities of a roll-away game that had been introduced with specific instructions as to how the game was to be played. The balance of exploration and play, or the novel and the familiar, may be an important issue for early childhood education.

Active engagement. The zest that preschool children bring to their play is evident in their overt action and verbalization and in their unwillingness to be distracted. As children grow older, and play becomes interiorized in daydreaming, the engagement of the child's attention is not as readily identified by the adult observer.

The question of how actively preschool children are attending to their play is an important issue for their teachers. The teacher, surveying the classroom and its activities, needs to ask how many children are deeply involved in their play and how many are engaged in desultory activities that may reflect little more than boredom. Children, like adults, have "low" days. However, what is, in effect, the intellectual withdrawal of too many children on too many days should be cause for teacher concern.

This brief sketch of current theories of play and the aspects on which they appear to agree can only suggest the wealth of material that has potential implications for the teacher's study of play. If our description of the features of play enables the teacher to distinguish more surely when children are at play and when they are not, it still provides less than the teacher needs to know when setting expectations for children's play.

THE DEVELOPMENT OF PLAY

Teachers have long recognized that the play of 2-year-olds differs from that of 3-year-olds and that they in turn play differently from 4-,

5-, and 6-year-olds. A 2-year-old sets the table in the playhouse with toy plates and silverware and plastic food. His actions indicate that he is copying what he has seen in reality. A 3-year-old in the same situation shows less concern for the realistic nature of the props. A block serves for a cup and a Leggo becomes the bottle for the doll in his lap. He talks with his "baby," producing crying noises or demands in a high-pitched voice.

Four- or 5-year-olds can imagine the dishes and silverware, and can take the roles of family members and weave a plot around them. A telephone call from Grandma at the bus station is readily incorporated into the household activities. For these older children the focus is on the drama played out among the roles in the context of the playhouse. Reality is extended and elaborated rather than reproduced directly. Plots often carry over from one day to the next and may be elaborated and extended over months.

Researchers, studying the play of children systematically, have made finer-grained analyses of the increasing social and cognitive complexity of children's play in the years before age 6. Early studies were mainly descriptive, but recent research has more often been guided by theory. Drawing particularly on the ideas of Piaget and Vygotsky, researchers have studied infants and toddlers to see when and how pretense play begins (Fein, 1981). A substantial number of studies have been conducted in preschools and day care centers (Rubin, et al., 1983). Some have looked at the cognitive aspects of children's play, some at the social aspects. Others have attempted to combine the social and cognitive elements. A fourth focus has been on children's communication during their play.

In this section we present some of the findings from this research. These findings may assist teachers in assessing the play of children in groups and in setting expectations for the development of play as children grow older. The section is organized around the sequence of development of play described by Piaget (1962).

The bulk of the available research relates to dramatic play. It covers only sketchily sensorimotor play, constructive play, and games with rules during the years from 2 to 6. Much, if not most, of the research has been conducted in middle-class settings and may not apply universally. The studies of early pretense play extend below the ages of major concern in this article, but we have included some reference to them since the teacher of older children may find some children whose play has not yet moved beyond the sensorimotor period.

According to the theory of Piaget, the play of the infant progresses from sensorimotor activity to pretense or symbolic play at around 15 to 18 months. Symbolic play predominates throughout the period under consideration here until around the age of 6 or 7 years, when games with rules begin to assume greater importance. Within this framework several kinds of play can be considered.

Sensorimotor Play

Sometimes labelled practice play or functional play, this activity begins in early infancy. The baby, having acquired some pattern of action (such as grasping or looking), repeats the pattern or "schema" just for the sake of grasping or looking. As Piaget (1962) notes, whether a particular schema is used playfully or otherwise depends on the context. As the infant grows older the schemata are coordinated and applied to an increasing array of objects. The objects serve as "an opportunity for activity" or for play "that is a happy display of known actions" (p. 93).

The infants' sensorimotor encounters with the environment are, of course, not limited to physical objects but include their caretakers as well. Some of these encounters become ritualized just as do other combinations of sensorimotor actions, like those involved in bathing or getting ready for sleep. Such rituals signal the child's beginning awareness of his or her own actions and the imminent emergence of symbolic play.

Sensorimotor play does not disappear with the advent of symbolic play. Teachers recognize it when they see children running for the sake of running, jumping up and down exuberantly, clapping one block against another, or repeating nonsense phrases over and over. Play of this sort, according to studies reported by Rubin et al. (1983), drops from 53% of all free activity between 14 and 30 months to 44% or less between 3 and 4 years and to 33% or less from 4 to 5 years. By the time children are 6 to 7 years old, such functional play may comprise less than 14% of all play. The elaborate "space chase" games that children play outdoors combine elements of sensorimotor and dramatic play. The joy that comes from running, leaping, and crouching is enhanced with the excitement of an imagined flight with Darth Vadar or Wonder Woman.

Sensorimotor play is always present in the behavioral repertoire of both children and adults. The adult who jogs, dances, plays tennis, or doodles with a pencil is engaged in sensorimotor play. Such play declines with development only in its frequency relative to symbolic play.

Sensorimotor play beyond the infancy period seems to have received somewhat cursory attention from researchers. Most preschool teachers have experienced sensorimotor play at group or circle time. One child begins snapping her fingers, or clicking her tongue, and the activity quickly becomes a group phenomenon. Teachers would like to know more

about the factors that precipitate sensorimotor play and about the circumstances under which it becomes contagious. Does the child see it as different from other kinds of play? To what extent is it an ingredient in rough and tumble play or in movement play, or even in dramatic play? Such information would enable the teacher to understand better both group and individual behavior in the classroom.

Symbolic Play

Symbolic play, from early forms in infancy through the preschool period, has been much studied in recent years. Researchers have hypothesized that make-believe is related to a variety of cognitive and social skills. Looking at the manifestations of pretense in the infant, they observe characteristics that are also found in the thoughts of mature individuals.

Characteristics. The earliest pretend gestures of the infant, appearing at 12 or 13 months of age (Fein, 1981; Nicholich, 1977; Rubin et al., 1982) are seen as decontextualization in that the pretense behaviors, resembling behaviors associated with eating, sleeping, or some other familiar experience, are detached from the circumstances usually surrounding them. The baby initiates sleeping behaviors when it is not bedtime, or replicates drinking behaviors when there is no liquid in the cup. From the cognitive perspective, it is "as if" the gestures have begun to stand for or symbolize the situations of sleeping or drinking. From the standpoint of social development the child seems to have abstracted, in a rudimentary fashion, the rules that pertain to the situations, such as where and how one sleeps, what one drinks, in what utensils, and so on.

Self-other relations. Pretense play during the second year shifts from self-referenced behavior (the child drinks from the cup herself) to

other-referenced (the child has the mother or a doll drink). Initially, the child takes an active role, and the doll serves as a passive recipient of the child's actions (Overton & Jackson, 1973; Werner & Kaplan, 1964). Later, however, the child treats the doll as though the doll were the active agent (Fein & Robertson, 1974). These shifts in pretense behavior appear to form a developmental sequence (Watson & Fischer, 1980). From 12 to 30 months of age, children show a steady increase in the tendency to have the doll act as a separate individual.

Examples of the child's developing ability to sustain the identity of a doll, or even an imagined companion, are many. Four-year-old Barbara brings her Mickey Mouse doll to preschool. Mickey interrupts Barbara's conversations with adults and other children. Speaking in a high-pitched voice, he demands a drink of water or asks a question. Three-year-old Susan brings an imaginary rabbit to the center each day. She consults with the rabbit before engaging in the activities provided.

The ability to act as if one were another person is a prerequisite to later role taking. Here, the child must coordinate his or her own self-identity with the role of another (Gould, 1972) and then extend this into sequences of familiar activities (Fenson & Ramsay, 1980). Role taking, in its turn, appears to be related to the more complex taking of the perspective of the other that is inherent in successful social relations and probably also in the solution of a variety of intellectual problems (Mead, 1934). Although these relationships have not yet been firmly established in empirical research, the child's role taking does provide the teacher with clues as to the progress the child is making in both social and cognitive development.

Object substitution. The child's ability to substitute one object for another (for example, a shell for a cup) has been of considerable theoretical interest (Piaget, 1962; Vygotsky, 1962, 1967; Winnicott, 1971) and has been studied extensively (Fein, 1981; Rubin et al., 1983). A study by Fein (1975) concerns single and double substitutions. At 24 months nearly all of the children studied pretended to feed a toy horse with a cup. When the horse was replaced with an abstract wire form or when the cup was replaced by a shell, 70% of the children also accepted the pretense. But only 23% were able to maintain the pretense in the double substitution, when the wire form was presented as the horse together with the shell as a cup. Follow-up studies have examined how the nature of the substitute objects affects the children's pretense. Such objects may resemble the realistic object in form, as a shell resembles a cup, or in function, as a bottle resembles the cup, or in neither form nor function, as would be the case of a toy car, for example. An object with an ambiguous function, such as a block, is easier for the child to substitute than is an object with a conflicting function, such as the toy car (Elder & Peterson, 1978; Golomb, 1977).

Although young preschoolers (ages 2 and 3) may prefer highly prototypical objects in pretend situations, this preference shifts as they grow older (Fein, 1979; Pulaski, 1970). By age 5, nonrealistic objects evoke richer and more varied fantasy themes. Children at this age indicate preferences for objects that allow them to exercise pretend schemes with a minimum of conflicting perceptual cues and a maximum of leeway for successive transformations with the same object.

Findings such as these open up many questions of interest to the teacher. For example, does the provision of realistic objects inhibit the

play of older children? Might such replicas serve to facilitate the play of an older child who seems less imaginative than most?

The ways children use, or don't use, props in their play may provide interesting clues to their development. Does the child require a prop to initiate play? How flexible is the child in transforming an object into a prop? Do the transformations appear to be planned or spontaneous? Are props really needed, or is the presence of objects only in the "mind's eye" sufficient? In the latter case, what about the actions of the child? Are they consistent with the object represented? Questions such as these may supplement the questions that teachers have traditionally asked about children's symbolic play and what it may represent in emotional as well as intellectual and social terms. (For a discussion of the latter question, see Gould, 1972).

Some problems in definition. When one child announces, "I'm the daddy" and another says, "I'm the mommy," we anticipate a bit of drama symbolizing something from home or television. Shift the scene to the block corner. Two girls are silently stacking the blocks, one atop another. Do the blocks represent some building they have seen? Or is the play symbolic? With only this much evidence, we do not know. At a table nearby, a 4-year-old looks up from his crayon drawing and says, "See my house!" We know that he has been engaged in symbolic behavior, but is it play? We use these instances to indicate that the lines between symbolic and other types of play are not always clear.

Most of the research attempting to establish the incidence and kinds of symbolic play children engage in when they are in preschool settings uses predefined categories. These categories may be applied directly to the ongoing behavior of the children, viewed one by one, or applied later

to descriptive protocols of that behavior. Under these circumstances some of the symbolic transformations and their significance may elude the researcher. Some problems arise because, as Schwartzman (1978) and others have shown, the text of the play always depends on its context.

Teachers, who are often privy to what has preceded a particular play episode, may be better able to make sense of it than researchers who are bound by a category system and the constraints of the time for observation. When 3½-year-old Jane sits whining in the playhouse chair, hitting its arms repeatedly, the uninformed observer may classify Jane's behavior as unimaginative, repetitive, and immature. In contrast, Jane's teacher recalls the more typical play of several weeks ago, in which Jane enacted a dramatic rescue from a fire truck. Jane has just had a new baby brother and her preschool play is appropriate to assimilating the dramatic change in her play at home. While teachers may have particular insight into children's play behaviors, their responsibilities for the guidance and care of groups of children may limit their perspectives also.

From the teacher's viewpoint the most common type of symbolic play is that labelled "dramatic play," usually occurring in areas set up with props to assist the children in depicting certain themes from their own experiences. Such play is not, however, limited to those areas but may occur in conjunction with constructive play in the block area, or when the child is painting, using play-dough or clay, or riding a tricycle.

Dramatic play. Pretense play may be solitary, but from the age of 3 years it is more likely to involve more than one child. For example, Johnson and Ershler (1981) conducted a longitudinal study of children who were 3-year-olds at the beginning of their observations. They found a steady increase in both the amount of children's dramatic play and the maturity of their social interaction.

The social characteristics of dramatic play change as children grow older. Early childhood teachers may recall from their textbooks that the play of 2- and 3-year-olds is often described as solitary and parallel, while that of 4- and 5-year-olds is described as associative and cooperative. As Hartup (1983) points out, this is an oversimplification. The frequency of solitary play among 5-year-olds does not differ greatly from that of cooperative play at that age (Parten, 1932; Barnes, 1971). The incidence of parallel play is also similar to that for associative and cooperative play. The important changes in dramatic play during the preschool years are not quantitative but qualitative, as represented in the older children's abilities to sustain increasingly complex social interaction. Such interaction also reflects increasing cognitive maturity.

One researcher (Smilansky, 1968) uses the term "sociodramatic play" to describe play that is cognitively advanced. In such play, "the child's efforts are aimed at reproducing, as exactly as possible, the world as he observes it, as he understands it and insofar as he remembers it" (p. 71). The highest level of sociodramatic play includes six "evaluative factors": imitative role play, make-believe in regard to objects, make-believe in regard to actions and situations, persistence (in a play episode for at least 10 minutes), interaction with at least two players involved, and verbal communication. Smilansky's criteria have been adapted for use in several other studies, including some in which categories of social participation from Parten (1932) were nested in Smilansky's cognitive categories (Rubin et al., 1983).

Perhaps the main value Smilansky's criteria have for teachers is that they enable them to think of the variety of transformations and interactions that can go on in a play episode with two or more child actors.

However, it may be possible to penetrate the intellectual meaning of the play episode more deeply.

Bateson (cited by Schwartzman, 1978) suggests that children are not only learning how to play roles, but are also learning that there are rules about roles. In a similar vein, Schwartzman comments that

> Play . . . enables the child to learn (and also to comment on) rules for relationships. It is not primarily an activity that teaches the content of specific roles because it focuses on relationship forms. This is the significance of the example of sisters "playing sisters," where the girls are playing with the idea of "a relationship" and the idea of "context." (p. 274)

Further light on the complexities of dramatic play comes from studies of the ways children communicate in it. Garvey (1977), from observations of dyads of previously acquainted nursery school children, notes five types of action, both gestural and verbal, that children use to communicate "this is pretend." She also notes how they organize play episodes and types of roles they most frequently assume. The underlying competencies are described by Garvey (1974). First is the ability to differentiate play from non-play and to understand with the partner(s) when a play state is evident. Second, the children must abstract organizing rules for interaction and see them as mutually binding. Third, the players must be able to identify a theme, contribute to it, and agree on its modification. Such analyses of children's dramatic play seem to be potentially useful for teachers who want to understand and support it as effectively as possible.

Constructive play. Researchers and teachers would have little disagreement in identifying dramatic play, but these groups may disagree among themselves as well as with each other when it comes to constructive play. The problem is suggested by Piaget (1962) who writes, "Making a house with plasticene or bricks involves both sensorimotor skill and

symbolic representation." He adds, however, that "drawing a house (construction) is a move away from play, in the strict sense, toward work" (p. 110).

From their examination of recent research in preschool and kindergarten classes, Rubin et al. (1982) report that "constructive play is the most common form of activity, ranging from 40% of all activity at 3½ years to approximately 51% at 4, 5 and 6 years " (p. 79). Tizard, Philps, and Plewis (1976) in a study of English preschool centers suggest that the high proportion of constructive play may be an outcome of an environment that emphasizes the manipulation of objects, presumably including opportunities for construction.

That constructive or manipulative activity need not preclude imaginative activity is evident in a recent observation in a preschool. Kevin has built a three-tiered structure from play-dough and has placed smaller pieces of dough around it, like stepping stones. Using a cookie cutter shaped like a man, he walks it around the structure, chanting "I'm walking on the sidewalk! I'm walking on the sidewalk!" Then he hops the cutter up and down in front of the structure. In a low gruff voice he says, "Little pig, little pig, let me come in. I'll huff and I'll puff and I'll come in." Then he changes to a high voice, "Not by the hair of my chinny chin chin!" In a normal voice he says, "Whoa! B-r-ck!" and crushes the play-dough structure with the cutter. Clearly, both constructive and imaginative activity is present in the child's play. Nevertheless, Tizard et al. (1976) have proposed that manipulative activity may inhibit symbolic activity. In contrast, Forman and Hill (1980) see the "open-ended playing around with the alternative ways of doing something" as "constructive play" that "by definition builds on itself to increase the competence of the child " (p. 2).

What seems to be needed on the part of both researchers and teachers is greater attention to what children do with the variety of objects they encounter in a preschool. Are their activities merely manipulative (that is, is the play at a sensorimotor level), or are they constructive in the sense of using the objects to create new objects or new effects, or is dramatic activity also involved? When it is subjected to sufficient scrutiny, constructive play may be seen to have a place in the curriculum overlapping with dramatic play, and it may be perceived to be equally as important.

Games with rules. In Piaget's (1962) theory constructive play evolves toward work and dramatic play toward games with rules. In the years from 4 to 7, children begin to be able to participate in games with rules. Such games arise out of sensorimotor combinations (races, ball games) or intellectual combinations (cards, chess) and are regulated either by a code that has been handed down or by mutual agreement. According to Piaget these games are also competitive. More recent cross-cultural work suggests that competition is defined differently in different cultures and that some cultures place more emphasis on collaboration and cooperation than on competition (Schwartzmann, 1978). (For a consideration of competition from Piaget's view, see Kamil & DeVries, 1980.)

Games with rules differ from pretense play in that the rules have been established in advance and determine how the play is to go. Any alterations in the rules must be agreed upon by the players beforehand. These predetermined structures contrast with the ad hoc negotiation and flexibility of dramatic play.

The literature related to games is voluminous, but we have found little that describes the ways young children under the age of 6 begin to

acquire skills in and gain understanding of games. Two exceptions are Piaget's (1965) early investigation of games with rules, which includes several 5-year-olds, and Kamil and DeVries's Group Games (1980), a book that reports on the ways these two authors introduced such games in the preschool.

Some Issues in the Development of Play

Three issues related to the development of play deserve further comment. The first has to do with solitary play. We have noted that solitary play maintains its position relative to group play throughout the preschool years. What appears to change with development is its symbolic complexity and its availability as a choice in varying social contexts. There is accordingly little reason to assume that it is qualitatively inferior to other kinds of symbolic play, and there may be good reason to make provision for it in the curriculum. One of the present authors (Monighan) concludes from systematic observation of solitary play in her preschool that facilitation of solitary play may encourage the young child's sense of mastery of the environment. Such a sense of mastery and well established schemes of self-action appear to provide a solid base for the cooperative play, sharing of ideas, and social dialogue that are expected from school-age children. Consolidation of cognitive schemes in a solitary context may also contribute to the development of problem-solving skills and reliance on an inner locus of control in educational settings (Moore, Evertson, & Brophy, 1974; Singer, 1973; Strom, 1976).

A second issue has to do with parallel play, which like solitary play remains at rather high levels throughout the preschool years (Hartup, 1983). Closer attention from both researchers and teachers may reveal that parallel play involves coordination of gestural, if not verbal, behaviors.

Thus, it may sometimes represent greater social maturity than is implied in the usual definition of "play beside but not with" another child.

A third and related issue has to do with the cognitive categories that have been imposed on children's play, sometimes in conjunction with categories of social participation. The question is whether these categories adequately represent the processes involved in play, particularly from the viewpoint of the child in a particular context. As discussed above, the evidence now shows that the social participation categories are not hierarchical, although the cognitive categories may be so. Better assessments of children's development in play may come from studying play episodes in their interactive entirety rather than by attempting to pinpoint them on dimensions whose relationships are not yet understood.

ASSESSMENT: INDIVIDUAL DIFFERENCES

Whether the children in a classroom come from similar or diverse socioeconomic backgrounds, individual children, even of the same age, will differ from one another in the ways they play. Some of these differences seem to be matters of personality, and some seem to depend on the sex of the child. Others are attributed to cultural and social class differences in childrearing, including time spent watching television. Research related to all these factors tends to be inconclusive and, especially in the case of sex, cultural background, and socioeconomic status, controversial.

Personality

Teachers can often identify children in their groups who seem particularly playful or imaginative. These traits have also interested researchers. For example, Lieberman (1977) found that kindergarten teachers could make reasonably reliable ratings on personality attributes associated with playfulness. More recently, Jenkins (1982) found that preschool

teachers had difficulty making such ratings. Younger children and children from different cultural groups may manifest playfulness in different ways. Perhaps, also, preschool teachers are less experienced in making ratings than are kindergarten teachers.

A similar problem is attached to the identification of imaginativeness, a personality factor that has been studied extensively by J. L. Singer and D. C. Singer and their colleagues (see for example Singer, 1973; Singer & Singer, 1976). They found that children vary widely in both the frequency and the consistency of their make-believe.

The possibility that children differ from an early age in the style of their symbolic activity is also being explored. Wolf and Gardner (1979) have identified one group of children as "patterners" on the basis of their interest in the physical properties and arrangements of objects, and another group "dramatists" because of their interest in people. Like most of the other personality variables, "style" is intriguing, but its long-term significance, if any, is as yet unknown.

Handicap

As mainstreaming has brought more children with mental, physical, or emotional handicaps into preschools and centers, teachers have become concerned with providing appropriately for their play. Consideration of the research related to this issue goes beyond the scope of this discussion. Rubin et al. (1982) include a rather detailed survey of recent studies, and the research continues to grow. Rubin et al. underline the importance of finding ways to make play possible for handicapped children so that they, like other children, can enjoy its features and reap its benefits.

Sex

The old adage that boys will be boys, conforming to sexual stereotypes, is confirmed in research showing that boys prefer fictional superhero roles while girls are more likely to take familial roles. Boys are also more likely to engage in rough-and-tumble play (Rubin et al., 1982). According to both recent studies and studies dating back to 1927 (Fein, 1981), boys also prefer blocks and transportation toys to dolls and house toys. However, as Fein points out, and as teachers can readily observe, the important question is not where children play or with what but rather what they do in their play.

Teachers of preschoolers report that the introduction of more feminine role models in the media and children's literature may be affecting children's play. Girls playing the role of the film Star Wars' Princess Leah have been observed using Barbie dolls as catapults, missiles, or hand-held weapons. Preschool boys have also taken to Star Wars "figures" (the manufacturer's term for what are essentially dolls) and are happily dressing and feeding them in much the same ways as girls play with their dolls. As popular culture changes, both boys and girls may have more permission to expand their play into domains traditionally reserved for the opposite sex.

Childrearing Influences

Early research on pretense play, stimulated by psychoanalytic and social learning theories, focused on the ways the content of children's play reflected family dynamics. More recent research has turned to the ways parents encourage or discourage pretense and related behaviors.

An important element in parental childrearing which affects play is the amount and kind of television viewing permitted. Children who watch

a great deal of television play less imaginatively than those who watch less (Fein, 1981; Singer & Singer, 1976).

Research on the effects of television viewing on children's play is limited. Concern has shifted from the content of children's television to the process involved in the viewing experience (Winn, 1977). Singer and Singer (1976) report that highly imaginative children choose to watch very little television. On the other hand, Singer (1973) points out that some exposure to television, particularly if mediated by an adult co-viewer, may stimulate ideas for imaginative play. The research does not specify the optimal amount of viewing time for young children. It does suggest that without adult mediation, the passive nature of viewing, with its limited opportunity for dialogue and symbolic construction, may restrict the child's imaginative behavior. In addition, children's viewing is always meshed with other factors that may influence the kind and amount of play.

Several recent studies (Feitelson & Ross, 1973; Griffing, 1980; Rosen, 1974; Smilansky, 1968; Smith & Dodsworth, 1978) have found that children from lower- and working-class homes display less imaginative play, at least in the preschool, than children from middle-class homes. These findings are criticized on several grounds, including the ethnocentrism of the researchers, the methods used to assess the play, and the fact that children from similar backgrounds in other circumstances do reveal imaginative play (Eifermann, 1971; Fein & Stork, 1981; Freyberg, 1973).

The array of toys and other materials children from lower socioeconomic homes find in the typical middle-class preschool, and the encouragement they receive to play with them, may contrast sharply with the home setting and the attitudes of the parents. Thus, the preschool may seem a "strange situation" to the child from an economically disadvantaged home.

He or she, as Fein and Stork (1981) and Tizard et al. (1976) show, is more likely to reveal competence in settings offering more freedom of movement than the typical classroom.

Sutton-Smith and Heath (1981), drawing on the work of Schwartzman and other anthropologists and linguists, state that many play researchers have taken an unduly narrow view of play, discussing it as if it were a solitary affair between a player and the player's toys or imaginings. This view reflects the literary, schooling tradition of middle-class culture and contrasts with the oral tradition of other cultures. Sutton-Smith and Heath provide several examples to show that what differs between children brought up in the oral tradition and those brought up in the literary tradition is not imagination but the way it is expressed.

All of this points to the importance of the teacher's knowledge of and sensitivity to the cultural traditions that may influence the ways children play. Teachers, if they are open to communication with parents, are often in a better position to acquire such knowledge than is the researcher who observes specific behaviors for a relatively short period of time. The teacher's knowledge is important both to the assessment of play and also to the provisions that are made for it.

HOW TEACHERS CAN FACILITATE CHILDREN'S PLAY

Two recent studies from England underscore the importance of the teacher's grasp of theory, as well as ability to recognize the distinguishing features of play, to understand the nature of play's development, and to be able to assess the play of children in their groups. All of these are essential to the facilitation of children's play.

In an observational study of preschool centers Tizard et al. (1976) found little evidence of complex, advanced level dramatic play. Centers

that had well trained teachers did not differ significantly from centers where the teachers had not had such training. The study led Tizard (1977) to question whether play is indeed "the child's way of learning." She describes how some English nursery school teachers, drawing on the theories of Isaacs, Gesell, and Piaget, have evolved an ideology of play that says that teachers must not initiate or take a major role in play lest they interfere with the child's creative impulses. Such an ideology seems a travesty of the views of education held by Isaacs, Gesell, and Piaget. It demonstrates that the proponents of a theory, through failure to come to terms with all its implications, sometimes become the theory's worst enemies.

A second study (Sylva, Roy, & Pointer, 1980) took a different tack from the Tizard study in that it drew on the experience of preschool teachers to establish criteria for the evaluation of play as rich (complex and imaginative) or simple (ordinary and dull). This study, like the study of Tizard, found a preponderance of simple play. This suggests again that teachers may pay lip service to play without really understanding it or knowing how to add to its complexity and imaginativeness or how to promote its fullest development.

Teachers influence the play of children by providing a physical and social environment that is conducive to play and by responding to and participating in the play. Phyfe-Perkins (1980) reviewed more than 100 studies concerning the effects of the physical environment on children's behavior in preschool settings. She concludes that if a setting is to provide and support developmentally appropriate activity for all the children involved, teachers must engage in systematic observation of the children at play.

Some of the questions that such observation might address have been discussed earlier. These include the proportion of novel to familiar objects, the proportion of replicas and structured materials to unstructured objects and materials in relation to the ages and maturity of the children, the availability of sex-typed toys to both sexes, the provision of toys to match differing styles of play, and the adequacy and availability of outdoor play areas.

After organizing or reorganizing the physical environment, teachers need to observe the effects of such changes on the children. For example, do the changes result in larger or smaller groups of children in particular areas? More or less verbal interaction? More cross-aged or cross-sexed groups? More aggression or more cooperation? Is there more sensorimotor, constructive, or dramatic play? Are the play episodes sustained longer? Studies show that the space and the resources available affect the behavior of both children and teachers (Phyfe-Perkins, 1980; Kritchevsky, 1972). Other important variables are not only the number of children but their sex, ages, cultural background, and capabilities. The play of mixed-aged groups must differ from that of single-age groups, but the literature provides little evidence about such differences. Hartup (1982) notes that 90% of the literature on child/child interaction is limited to interaction among age-mates.

The findings in studies on the effects of environmental variables on the play of children often seem to be specific to the particular preschool setting, underlining the importance of the teacher's systematic observation. For example, one of the present authors, Scales, and the staff of her center focused their observation on children's communication in two different areas where tables were available and discovered that the two

settings elicited quite different kinds of communication. These findings enabled them to modify arrangements in order to facilitate different kinds of play.

Assuming that teachers have given attention to the physical and social environment of a center and that their assessment of the play of an individual child or of the group shows that it is limited in scope, quality, or quantity, what is their further responsibility? Recent research includes a number of play training and tutoring studies (Burns & Brainerd, 1979; Reyberg, 1973; Rosen, 1974; Saltz et al., 1977; Smilansky, 1968). However, the results are not conclusive (Rubin et al., 1982). Nevertheless, teachers who know the techniques used in the play training studies may see possibilities for involvement that will go beyond that of a passive observer without depriving the children of the spontaneity and autonomy which are the essence of play.

Informing Parents on the Effects of Play

The teachers' convictions about the importance of play do not necessarily correspond to the views of parents. Few parents believe that preschool Jacks and Jills should abstain from play, but they do question whether the preschool puts sufficient emphasis on children's work. In this they reflect the concern of some researchers. Tizard (1977), for example, questions whether teachers who are afraid to interfere with the children's play might not contribute more to the children's learning by being more instructive--for example, by working with them on constructive projects and teaching them games with rules.

The dichotomy posed by the old saying "All work and no play makes Jack a dull boy" is a false one. The issue is not play versus work, nor

play versus instruction, but an appropriate balance between play and work or instruction. Nevertheless, the teacher needs to be able to justify that balance, drawing on both theory and research. Unfortunately, the research that attempts to show what children learn through their play, or how their playing affects their later development, is not yet able to answer many questions. Teachers need to rely mainly on their own knowledge of theory and observations of the way the theory manifests itself in the play of the children in their groups. And researchers need the information and insight that teachers can provide in order to give direction to a rapidly expanding area of child development research.

Current research on the outcomes of play falls roughly into three categories: experimental studies designed to reveal the effects of play on problem solving, studies focused on role taking and its effects on other social and cognitive functions, and studies correlating children's play behavior with their achievement in schools. The research related to problem solving suggests that the flexibility developed through play with objects contributes to success in tasks requiring multiple solutions (Sylva, Bruner, & Genova, 1976). The effects of play on problems with a single solution are less clear cut (Rubin et al., 1983).

Studies of the effects of role taking as it occurs in dramatic play are limited in number. Studies have related role taking as a feature of training to such outcomes as social participation and cooperation, creativity, qualitative invariance, and spatial, cognitive, and affective perspective taking, but they have not produced consistent results (Rubin et al., 1982).

A recent study of kindergartner's play (Pellegrini, 1980), using Piagetian categories, shows that the level of children's play is a good

predictor of achievement in prereading, language, and writing. A study such as this must be viewed with caution since it provides no direct evidence that it is the provision of opportunities for play in school that is the crucial factor in the prediction. On the other hand, the author does describe the apparent continuity between the symbolic skills and processes involved in play and those required in reading and writing.

The teacher's understanding of this continuum may be a powerful argument for the justification of play in the early childhood curriculum. It is, however, an argument that must be used judiciously, otherwise the teacher may seem to be promoting play as "cognitive child labor" (Sutton-Smith, 1971a) by failing to take sufficient account of the unique features of play. Thus, any allusion to possible resemblances between preschool play and later academic skills ought not be divorced from the notion of play as a context in which the child functions "a jump above himself" (Vygotsky, 1966). In this play context children have opportunities for mastery, self-confidence, and self-regulation, as well as for becoming socially responsive and cooperative. The play context provides opportunities for developing the flexibility and creativity that may share importance with present day "basic skills" as we enter the twenty-first century.

CONCLUSION

In reviewing the recent research on play from the perspective of the teacher we have noted the abundance of material that has potential interest for teachers of 2- to 6-year-olds. At the same time we have suggested that the available theory is not always clear. The different kinds of play are not always well defined. The functions they serve and the relationships among them are sometimes ambiguous. On the other hand, the

research provides many clues for teachers to use in assessing the play of children in their groups and in providing a physical and social environment conducive to rich, complex play. Furthermore, as teachers systematically observe children's play, becoming, in effect, researchers of classroom practice, their insights may help to clarify some of the confusions and ambiguities in current research.

Teachers who, drawing on recent research and their own classroom research, justify an important place for play in the early childhood curriculum will not lose sight of their responsibilities as instructors. They will take account of the ubiquitousness of play but will also recognize children's needs to acquire information and skills in a variety of ways. Bearing in mind Piaget's view of play as assimilation, they will not neglect the accommodative aspects of learning. Preschool children, at their own level, need to encounter the physical and the social worlds in ways that help them to clarify and understand. Teachers have responsibility in these areas as well as for providing the play opportunities in which children can consolidate and make personally meaningful the experiences they have had.

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